Matthew Christopher Pohadi

Mobile: +65 94664619 | Email: matthew_pohadi@mymail.sutd.edu.sg
Github: https://github.com/mattChrisP | LinkedIn:https://www.linkedin.com/in/matthewchristopherpohadi/
Portfolio: https://my-portfolio-mattchrisp.vercel.app/

EDUCATION

Singapore University of Technology and Design (SUTD) **Singapore**
- Bachelor of Engineering in Computer Science and Design (Software Engineering Major) **Sep 20 to May 24**

WORK EXPERIENCE

Jublia **Singapore**
Backend Engineer, Fall Internship **Aug 22 to Dec 22**

- Enhanced the existing Python codebase within the Flask framework by optimizing algorithms, specifically improving the comparison computation. This enhancement involved reducing the time complexity from $O(n^2)$ to $O(nlogn)$, resulting in efficient codebase.
- Played a pivotal role in problem-solving, which involved creative ideation, strategic planning, and hands-on development. This experience also enhanced my proficiency with GitLab as a CI/CD platform, and expanded my skillset to include the effective use of SQL and Postman.
- Led a collaborative effort with the Front-End team in the design, development, and deployment of a scalable audit logging system.

The Collective Marketplace (Team of 4, Established 2021, Start-Up) **Singapore**
Software Engineer, Summer Internship **May 21 to Sep 21**

- Utilized Flutter to develop and design user interfaces for new features, including craft listing, guide page, and update logs for the native app.
- Integrated the craft listing feature with Firebase, enhancing my grasp of database structuring, and gained practical experience with Github

PROJECTS

Personal Project
Spatial Data

- Developed a user-centric tourism discovery application leveraging Google Maps API; incorporated Docker for streamlined deployment, Flask as the backend framework, PostgreSQL for data management, Vercel for efficient hosting, and integrated Flickr API for enriched content.
- Crafted a specialized Python library integrated with an RTree data structure which facilitates efficient creation, insertion, and querying of nearest locations based on various parameters such as current location, location tags, and bounding areas, optimizing spatial data handling.
- Created a minimal UI for user-uploaded favorite locations and pictures, displayed on the website via a map interface.

WebScaler

- Designed and implemented a user-friendly web application for real-time image uploading and upscaling, using Docker for containerization
- Engineered a responsive system with ReactJS for intuitive frontend interactions, streamlining the image upload process and real-time result.
- Implemented backend processing with Flask and Go for robust image upscaling. Leveraged RabbitMQ for scalable, asynchronous job handling.

Open Chat

- Developed a website-based online chat application as a learning project, using Express.jsand React Framework for front-end development.
- Implemented real-time messaging functionality by integrating socket.io with the web server, allowing for live client-server communication.

Singapore University of Technology and Design (Academic Project)
Amazon DynamoDB Distributed System

- Devised comprehensive a fault tolerance protocol that sustains system integrity and continuity, even when some nodes are offline.
- Refined a data replication mechanism, inspired by DynamoDB's 'sloppy quorum' and 'replication' models, to enhance data availability and consistency across distributed systems. My implementation facilitates efficient concurrent replication, improving write operation

Ascenda Loyalty Program

- Created several endpoints to query program details, submit credit request, query credit status using ruby on rails.
- Created the transaction and loyalty program database DB model and linked the association between these models with others.

Native App Project

- Successfully integrated Google Maps API within the application to simulate store locations, as part of my learning in app development
- Employed the Gradle build system with Java to handle API calls and data processing, with the information displayed in the app's front end.

ADDITIONAL INFORMATION

- Technical skills: Python, Java, C, C++, Golang, React, Flutter, Flask, Node.js, jQuery, Bootstrap, Firebase, MongoDB, MySQL, PostgreSQL, Gitlab, Github, Docker, Vercel, GCP, AWS
- Comfortable working in Windows and Linux
- Fluent in English, and Bahasa Indonesia (spoken & written)